

In the Claims

The status of claims in the case is as follows:

1 1. [Currently amended] A system for downloading security
2 context elements that govern execution of agents,
3 comprising:

4 a list of identities of users authorized to execute
5 said agents;

6 downloadable cross certificates for verifying
7 electronic signatures;

8 signed agents in applications including signatory name
9 and corresponding electronic signature;

10 a group list store for storing names of authorized
11 users, said group list store storing the union of names
12 of users authorized to execute agents referenced by
13 applications downloadable from a plurality of servers;

14 agent execution code and agent management services

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15 responsive to said cross certificates and said
16 electronic signature for activating said signed agents.

17 2. [Currently amended] A system for downloading security
18 context elements that govern execution of downloadable and
19 distributable agents, comprising:

20 a restricted agent list store for storing names of user
21 identities of users authorized to execute restricted
22 agents;

23 an unrestricted agent list store for storing names of
24 user identities of users authorized to execute
25 unrestricted agents;

26 downloadable cross certificates for use in verifying
27 electronic signatures of names in said list stores;

28 a group list store for storing names of authorized
29 users, said group list store storing the union of names
30 of users authorized to execute agents referenced by
31 applications downloadable from a plurality of servers;

32 replicatable agents in applications containing

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33 signatures specifying name of signatory and
34 corresponding electronic signature for comparison with
35 said downloadable cross certificates;

36 agent execution code and agent management services for
37 activating agents dependent upon successful comparison
38 of signatures to cross certificates.

1 3. [Currently amended] A server system for preparing
2 security context elements for distribution to clients,
3 comprising:

4 application code;

5 agent code referenced by said application code and
6 including signatures specifying name and corresponding
7 electronic signature of signatories authorized to use
8 said agent code;

9 a group list store for storing names of authorized
10 signatories, said group list store storing the union of
11 names of signatories authorized to execute agents
12 referenced by applications downloadable from a
13 plurality of servers;

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14 agent execution code and agent management services for
15 activating agents dependent upon successful comparison
16 of signatures to cross certificates; and

17 a downloadable cross certificate store for storing
18 cross certificates for each user or organization listed
19 in said group list store and selected for downloading.

1 4. [Currently amended] A client system for using security
2 context elements distributed from a server with respect to
3 downloadable application code, comprising:

4 a client side rendition of a server application using a
5 signed agent;

6 said signed agent including signatures specifying name
7 and corresponding electronic signature of signatories
8 authorized to use said agent code;

9 a group list store for storing names of signatories,
10 said group list store storing the union of names of
11 users authorized to execute agents referenced by
12 applications downloadable from a plurality of servers;

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13 a cross certificate store for storing certificates for
14 signatories in said group list store;

15 agent execution code and agent management services for
16 activating said signed agent dependent upon successful
17 comparison of signatures to cross certificates.

1 5. [Original] The client system of claim 4, further
2 comprising:

3 said agent execution code being responsive to scheduled
4 or on-demand access to said signed agent for first
5 accessing said server to update said group list store
6 and said cross certificate store.

1 6. [Canceled]

1 7. [Currently amended] The client system of claim 4,
2 further comprising:

3 said group list store comprising a restricted group
4 store and an unrestricted group store.

1 8. [Original] The client system of claim 7, further

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2 comprising:

3 said agent execution code being operable responsive to
4 authentication of said signature in said signed agent
5 for determining the execution level allowed and being
6 operable responsive to failure of authentication of
7 said signature for preventing execution of said agent
8 code.

1 9. [Canceled]

2 10. [Canceled]

3 11. [Currently amended] ~~The method of claim 10, further~~
4 ~~comprising the steps of:~~ A method for governing execution of
5 downloadable and distributable signed agents characterized
6 by security context elements, comprising the steps of:

7 determining that said signed agent is scheduled or
8 selected for execution;

9 validating a signature in said signed agent against a
10 store of downloadable cross certificates;

11 activating agent management services for enabling

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12 execution of said signed agent only responsive to
13 validation of said signature;

1 replicating from a first server an application
2 referencing said signed agent;

3 responsive to determining that said signed agent is
4 scheduled or selected for execution, accessing said
5 first server to update said store of downloadable cross
6 certificates and thereafter validating said signature.

7 replicating from a second server a second application
8 referencing a second signed agent;

9 maintaining a unionized group list store of names of
10 signatories authorized to execute signed lists; and

11 responsive to determining that either said signed agent
12 or said second signed agent is scheduled or selected
13 for execution, first accessing the said first server or
14 said second server from which said scheduled or
15 selected agent was downloaded to update said unionized
16 group list store.

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1 12. [Canceled]

2 13. [Canceled]

3 14. [Currently amended] ~~The program storage device of~~
4 ~~claim 13, said method steps further comprising~~ A program
5 storage device readable by a machine, tangibly embodying a
6 program of instructions executable by a machine to perform
7 method steps for governing execution of downloadable and
8 distributable signed agents characterized by security
9 context elements, said method steps comprising:

10 determining that said signed agent is scheduled or
11 selected for execution;

12 validating a signature in said signed agent against a
13 store of downloadable cross certificates;

14 activating agent management services for enabling
15 execution of said signed agent only responsive to
16 validation of said signature;

1 replicating from a first server an application
2 referencing said signed agent;

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3 responsive to determining that said signed agent is
4 scheduled or selected for execution, accessing said
5 first server to update said store of downloadable cross
6 certificates and thereafter validating said signature;

7 replicating from a second server a second application
8 referencing a second signed agent;

9 maintaining a unionized group list store of names of
10 signatories authorized to execute signed agents; and

11 responsive to determining that either said signed agent
12 or said second signed agent is scheduled or selected
13 for execution, first accessing the said first server or
14 said second server from which said scheduled or
15 selected agent was downloaded to update said unionized
16 group list store.

17 15. [Previously presented] A client system for using
18 security context elements distributed from a server with
19 respect to downloadable application code, comprising:

20 a client side rendition of a server application using a
21 signed agent;

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22 said signed agent including signatures specifying name
23 and corresponding electronic signature of signatories
24 authorized to use said agent code;

25 a group list store for storing names of signatories;

26 a cross certificate store for storing certificates for
27 signatories in said group list store;

28 agent execution code for activating said signed agent
29 dependent upon successful comparison of signatures to
30 cross certificates;

31 said agent execution code being responsive to scheduled
32 or on-demand access to said signed agent for first
33 accessing said server to update said group list store
34 and said cross certificate store; and

35 said group list store storing the union of names of
36 signatories authorized to execute agents referenced by
37 applications downloadable from a plurality of servers.

1 16. [Previously presented] The client system of claim 15,
2 further comprising:

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3 said group list store comprising a restricted group
4 store and an unrestricted group store.

1 17. [Previously presented] The client system of claim 16,
2 further comprising:

3 said agent execution code being operable responsive to
4 authentication of said signature in said signed agent
5 for determining the execution level allowed and being
6 operable responsive to failure of authentication of
7 said signature for preventing execution of said agent
8 code.

1 18. [Previously presented] A method for governing
2 execution of downloadable and distributable signed agents
3 characterized by security context elements, comprising the
4 steps of:

5 determining that said signed agent is scheduled or
6 selected for execution;

7 validating a signature in said signed agent against a
8 store of downloadable cross certificates;

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9 executing said signed agent only responsive to
10 validation of said signature;

11 replicating from a first server an application
12 referencing said signed agent;

13 responsive to determining that said signed agent is
14 scheduled or selected for execution, accessing said
15 first server to update said store of downloadable cross
16 certificates and thereafter validating said signature;

17 replicating from a second server a second application
18 referencing a second signed agent;

19 maintaining a unionized group list store of names of
20 signatories authorized to execute signed lists; and

21 responsive to determining that either said signed agent
22 or said second signed agent is scheduled or selected
23 for execution, first accessing the said first server or
24 said second server from which said scheduled or
25 selected agent was downloaded to update said unionized
26 group list store.

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1 19. [Previously presented] A program storage device
2 readable by a machine, tangibly embodying a program of
3 instructions executable by a machine to perform method steps
4 for governing execution of downloadable and distributable
5 signed agents characterized by security context elements,
6 said method steps comprising:

7 determining that said signed agent is scheduled or
8 selected for execution;

9 validating a signature in said signed agent against a
10 store of downloadable cross certificates;

11 executing said signed agent only responsive to
12 validation of said signature;

13 replicating from a first server an application
14 referencing said signed agent; and

15 responsive to determining that said signed agent is
16 scheduled or selected for execution, accessing said
17 first server to update said store of downloadable cross
18 certificates and thereafter validating said signature;

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19 replicating from a second server a second application
20 referencing a second signed agent;

21 maintaining a unionized group list store of names of
22 signatories authorized to execute signed agents; and

23 responsive to determining that either said signed agent
24 or said second signed agent is scheduled or selected
25 for execution, first accessing the said first server or
26 said second server from which said scheduled or
27 selected agent was downloaded to update said unionized
28 group list store.

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